

## BRIEFER ARTICLES.

**Vitality of *Marsilia quadrifolia*.**—A most remarkable instance of the retention of vitality in the spores of this plant has recently come to my notice. In the summer of 1892 I gathered fertile specimens at Fresh Pond, near Cambridge, Mass. The rhizomes and their attached sporocarps were at once put into commercial alcohol (95%) and have been kept therein continuously to the present time. Spores from specimens used by a student in morphology (Miss Anna Tarnutzer) were left in water in the dissecting dishes for several days. When about to clean up the dishes Miss Tarnutzer was surprised to find young plants in the water. She called my attention to them and examination showed that they were young sporophytes of *Marsilia*, with shoots an inch or more long and roots well developed.

It was thought that this might be exceptional, and Miss Tarnutzer was directed to select spores from a freshly opened sporocarp and sow them in water. These also germinated as did many others which were tried, and the class was able to study the prothallium and sexual organs as well as the developing sporophyte.

The sporocarp of this plant is of course very resistant, but one would hardly expect it to be able to exclude alcohol so completely during three years immersion as to leave both microspores and megaspores capable of germination.—CHARLES R. BARNES, *University of Wisconsin*.

***Aspidium simulatum* DAVENPORT.**—Since the publication of this species I have received specimens for examination from a number of sources and found that my suspicion in regard to its having been many times collected for either *Aspidium Thelypteris* or *A. Noveboracense* was well founded.

I give the following additional stations not only as an indication of its range, but as positive evidence that botanists may expect to find it masquerading under one or the other of its congeners' names in their herbaria:

"Sawmill Pond, Anne Arundel co., Maryland, October 1, 1894, in wet thickets and quite plentiful."

Collected by C. E. Waters, Johns Hopkins University, Baltimore, who writes that "the sporangia were still unopened, but so nearly ripe that on taking the fronds from the damp driers the dry air caused the sporangia to open so rapidly that a decided crackling noise could be

heard." He also writes that "with us *A. Thelypteris* ripened this year (1894) in the early part of September, and *A. Noveboracense* in July or August," confirming my own observations on the relative differences in the development and ripening of the three ferns.

From Prof. Trelease of the Missouri Botanical Garden I have received specimens collected on Poplar Bluff, S. E. Missouri, August 15, 1875, by George W. Letterman, and at Sapulpa, Indian Territory Sept. 24, 1894, by B. F. Bush, no. 847, ticket marked "common."

There are a few forked veins in the lowermost pair of pinnae on Mr. Bush's specimen, and it will be noticed that the date for Mr. Letterman's is the earliest yet recorded.

The species has also been collected by Mr. Merritt L. Fernald, of the Cambridge herbarium, in Georgetown, Maine, in a different locality from that recorded by myself.

*Erratum.*—By a careless inadvertence, for which I alone am responsible, in my account of the habitat of this species (BOT. GAZ. 19: 496-1894) Seabrook is made to appear in Essex co., Mass., instead of New Hampshire, where it belongs; Essex co., Mass., should follow Salisbury.—GEORGE E. DAVENPORT, *Medford, Mass.*

Dr. Joseph Schröeter. — This eminent mycologist died at his home in Breslau, Dec. 12, 1894. His name and works are well known to American botanists, who regarded him as a leader in the departments of knowledge which he cultivated. The following account of his life is taken in the main from an article in the *Botanisches Centralblatt*, by Dr. H. Kionka of Breslau.

Schröeter was born in Potschkau in Upper Silesia, March 14, 1837, and was therefore only in his fifty-eighth year at time of his death. As a boy he was fond of plants, but being the son of a physician he naturally devoted himself to medicine, upon the completion of his gymnasium studies. He took his doctor's degree in Berlin at the age of twenty-two, and then entered military service. He was soon made an army surgeon, and in 1865 was promoted to the position of staff surgeon in the royal grenadiers stationed at Breslau.

During these years he still found time to pursue his botanical studies. When the Plant-Physiological Institute was established at Breslau in 1866, under the management of Prof. Cohn, Schröeter became the first investigator to enter, and maintained his connection with the institution up to the time of his death. He at first assisted Professors Cohn and Koch with their famous studies upon bacteria, and published a number of his own researches in this line, but was soon diverted to the study of the fungi, especially parasitic forms, which he made his life work. He opened Cohn's classical series of *Beiträge zur Biologie der*